

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

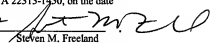
Appln. No.: 10/805,155  
 Applicant: Russo  
 Filed: March 19, 2004  
 Title: APPARATUS AND METHOD FOR  
 INCREASING BULK SHIPPING  
 DENSITY OF PARTIALLY ASSEMBLED  
 COMPUTER CHASSIS  
 Examiner: Ingrid D. Wright  
 Art Unit: 2835  
 Customer No.: 37123  
 Confirm. No.: 8639

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 Reg. No. 42,555

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Mail Stop: APPEAL BRIEF - PATENT  
 Hon. Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Dear Sir:

Appellant submits this appeal brief under 37 C.F.R. § 41.37 appealing the final  
 rejection of Claims 1-6, 8-13, and 15 in the office action mailed October 20, 2006.

**(1) Real Party in Interest**

The real parties in interest are Sony Corporation and Sony Electronics Inc.

**(2) Related Appeals and Interferences**

No related appeals or interferences are known to Appellants.

### **(3) Status of Claims**

Claims 1-15 were submitted for examination in the application filed on March 19, 2004.

Claims 7 and 14 were cancelled during prosecution.

Claims 1-6, 8-13, and 15 are appealed.

### **(4) Status of Amendments**

No amendments have been filed subsequent to the final rejection mailed October 20, 2006.

### **(5) Summary of Claimed Subject Matter**

The claimed embodiments are directed to methods and apparatuses of cooperating computer chassis (e.g., 202, 302, 402).<sup>1</sup> These embodiments are beneficial at least in shipping the chassis by increasing a number of chassis that can be shipped within a similar amount of shipping volume.<sup>2</sup> Often, shipping costs are dictated at least in part by the volume of the product being shipped and in many instances a greater shipping density (weight to volume) results in cost savings in shipping.<sup>3</sup>

FIGS. 2B, 3A, 3D and 4A from the application appear below for the convenience of the reader showing examples of cooperated chassis (202, 204, 206, 208, 302, 304, 306, 308, 402, 404) positioned relative to chassis compartments (212, 312, 412) according to some embodiments<sup>4</sup>:

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<sup>1</sup> See at least App., FIGS. 2A-2D, 3A-3D, 4A-4C and 5; p. 1, lines 7-11 and pg. 6, line 3 – pg. 8, line 21.

<sup>2</sup> Id.

<sup>3</sup> See at least FIGS. 1 and 2A-B; pg. 4, line 19 – pg. 5, line 24.

<sup>4</sup> For example, App. pg. 6, lines 11-21, pg. 10, lines 1-10, pg. 11, lines 1-27, pg. 11, line 28 – pg. 12, line 20.

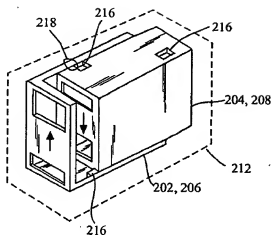


Fig. 2B

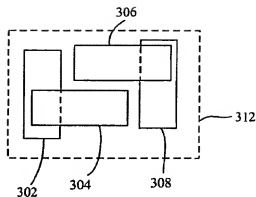


Fig. 3A

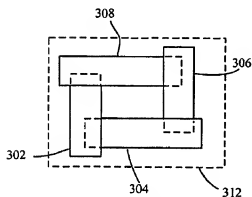


Fig. 3D

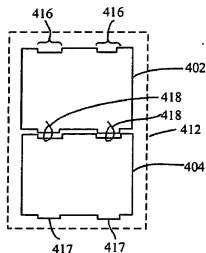


Fig. 4A

According to some claimed embodiments, shipping density is increased by forming chassis that can be joined prior to shipping.<sup>5</sup> By joining the chassis the cooperated chassis have a volume that is less than twice a volume of one of the chassis.<sup>6</sup> Further, in forming cooperated first and second chassis, the first and second chassis can be substantially identical.<sup>7</sup> The cooperation of multiple chassis increases shipping density by at least in part reducing an amount

<sup>5</sup> See at least App. FIGS. 2A-5; pg. 6, lines 3-21; pg. 7, line 20 – pg. 9, line 13; pg. 10, line 1-10; and pg. 11, line 1 – pg. 12, line 20.

<sup>6</sup> Id.

of volume occupied by the cooperated chassis compared with the volume that would be occupied by the multiple chassis in a non-cooperated configuration (such as shown in FIG. 1).<sup>8</sup> For example, a rectangular volume occupied by the joined chassis can be less than twice a rectangular volume of an individual chassis.<sup>9</sup>

In cooperating the chassis to be shipped, some embodiments provide that the chassis are joined so that an empty portion (220, 320) of a first computer chassis receives a non-empty portion (222, 322) of a cooperated second chassis.<sup>10</sup> In some embodiments, pre-assembled components are incorporated into the.<sup>11</sup> Joined chassis can be arranged in a single compartment of a pallet layout increasing the shipping densities.<sup>12</sup> In some embodiments, multiple pairs are further joined and/or cooperated and arranged in a single compartment of a pallet layout.<sup>13</sup>

#### **(6) Grounds of Rejection to be Reviewed**

The following issues are presented for review:

Issue 1: whether claims 8 and 12 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,666,713 to Kubota (referred to below as the Kubota patent).

Issue 2: whether claims 9-10, 13 and 15 are unpatentable under 35 U.S.C. §103(a) over the Kubota patent in view of U.S. Patent Application Publication No. 2003/0011976 to Treiber et al. (referred to below as the Treiber reference) in further view of U.S. Patent No. 6,991,097 to Sheehan (referred to below as the Sheehan patent).

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<sup>7</sup> See for example, App. FIGS. 2A-D, 3B-C and 4A; pg. 6, lines 11-21; and pg. 10, lines 1-21.

<sup>8</sup> See at least, App. FIGS. 2B, 2D, 3A and 3D; pg. 6, lines 11-21, pg. 8, line 22 – pg. 9, line 13; and pg. 14, line 11-16.

<sup>9</sup> Id.

<sup>10</sup> See at least, App. FIGS. 2A-B and 3A-D; pg. 7, line 14 – pg. 8, line 8; pg. 10, lines 11-26; and pg. 13, line 14 – pg. 14, line 10.

<sup>11</sup> See for example, App. pg. 7, line 20 – pg. 8, line 15.

<sup>12</sup> Id.

<sup>13</sup> See at least, App. FIGS. 3A and 3D; pg. 10, lines 1-10; pg. 11, lines 1-27; and pg. 13, line 24 – pg. 14, line 10.

Issue 3: whether claims 1-6 are unpatentable under 35 U.S.C. §103(a) over the Kubota patent in view of the Treiber reference in further view the Sheehan patent in still further view of U.S. Patent No. 5,159,528 to Murphy (referred to below as the Murphy patent).

## **(7) Argument**

The following arguments are presented to contest the grounds for rejection presented above.

### **Issue 1: Claims 8 and 12 are patentable view of the Kubota patent.**

#### **Claim 8**

Applicant respectfully submits that the Kubota patent fails to teach or suggest each limitation as recited in claim 8. For example, claim 8 recites in part:

a second computer chassis joined to the first computer chassis, wherein a shape of the first computer chassis is identical to a shape of the second computer chassis and includes an empty portion and a non-empty portion wherein the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis, and wherein a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis.

The Kubota patent fails to teach or suggest at least that the “rectangular volume of the joined first and second computer chassis being less than twice the rectangular volume of the first or second computer chassis” as recited in claim 8. The office action in rejection claim 8 and in response to Applicant’s prior arguments admits that Kubota does not teach or suggest that the “rectangular volume of the joined first and second chassis ... [is] less than twice the rectangular volume of the first or section computer chassis” as recited in claim 8. Specifically, the office action on page 10 states “the Examiner agrees that the rectangular volume of the joined first and second chassis (250A, 250B) is not less than twice the rectangular volume of the first and second chassis...,” and further states on page 3 that “Kubota teaches ... except being less than twice a rectangular volume of the first or second computer chassis,” and instead suggests that it would be “obvious to one having ordinary skill in the art ... to make the dimensions of the first and second chassis smaller” (office action, pg. 3, emphasis added). Applicant respectfully submits, however, that

simply making the first and second chassis of Kubota smaller does not result in the rectangular volume of the two joined “smaller” first and second chassis being less than twice the rectangular volume of one of the “smaller” first or second chassis. Instead, the only result of making the chassis of Kubota smaller would be that the joined rectangular volume would be smaller than the joined rectangular volume of the “larger” first and second chassis, not less than twice the “smaller” first or second chassis.

The rectangular volume of the two joined chassis in claim 8 is compared with twice the rectangular volume of one of the chassis. The two “smaller” chassis would still each have a rectangular volume and the combination of the two “smaller” chassis would still be at best according to Kubota and as admitted in the office action equal to the sum of the rectangular volumes of the two “smaller” chassis. Simply making the chassis smaller as suggested in the office action would not result in the rectangular volume of the two joined “smaller” chassis of Kubota being less than twice one of the “smaller” chassis. Therefore, the Kubota reference fails to teach or suggest each limitation as recited in claim 8, and thus, claim 8 is patentable over the Kubota patent.

Applicant further submits that if the office action is suggesting reducing the size of just one of the chassis, this would not read on claim 8 as claim 8 provides that the “shape of the first computer chassis is identical to a shape of the second computer chassis.” Therefore, reducing the size of one of the chassis would not teach each of the limitations of claim 8, and thus, claim 8 is patentable over the Kubota patent.

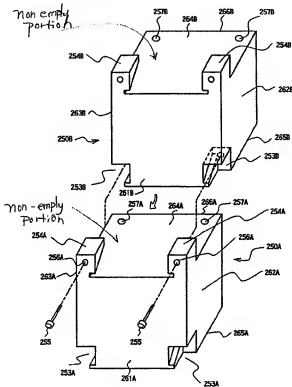
Still further, it would not be obvious to just make the chassis of Kubota smaller because the chassis of Kubota is designed for a given implementation. To change the size would require a redesign of elements that are to be inserted in the chassis of Kubota. Therefore, one skilled in the art would not simply just reduce the size of the chassis described in Kubota.

Furthermore, the Kubota patent does not teach or suggest at least first and second chassis with empty portions and non-empty portions “wherein the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 8. In suggesting that Kubota describes empty and non-empty portions, the office action mailed June 19, 2006 cites to Fig. 1 of the Kubota patent with

action appears below for the convenience of the reader:

**5,813,791**

Fig. 1 PRIOR ART



chassis, there is no empty portion described or suggested according Kubota.

non-empty portion of a second chassis. The office action does not show how or where Kubota teaches that the empty portion of the first chassis receives a portion of the non-empty portion of

the second chassis. Therefore, Applicant respectfully submits that the Kubota patent fails to teach or suggest first and second chassis that each contain an empty and non-empty portions where “empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 8. Thus, a *prima facie* case of obviousness has not been established and claim 8 is patentable over the Kubota patent.

Claim 12

Claim 12 depends from claim 8. Therefore, claim 12 is also patentable over the Kubota patent due at least to its dependency on claim 8 that is patentable over the Kubota patent.

**Issue 2: claims 9, 10, 13 and 15 are patentable over the Kubota patent in view of the Treiber reference and the Sheehan patent.**

Claim 9

Claim 9 depends from claim 8. Therefore, claim 9 is also patentable over the Kubota patent due at least to its dependency on a claim that is patentable over the Kubota patent. Neither the Treiber nor Sheehan references teach those limitations demonstrated above as not being taught by the Kubota patent, and thus, the combination fails to teach or suggest each limitation as recited in claim 9.

Additionally, the office action relies on the Treiber reference in suggesting that one skilled in the art would “utilize the single compartment of the Treiber et al., in the invention of Kubota, in order to provide modular packaging configuration of a computer system.” However, Applicant respectfully submits that even if, *arguendo*, one were to combine Treiber with Kubota, the combination would result in each of the chassis of Kubota having multiple cavities 16A, 16B as described in Treiber. This would have no effect on providing a single compartment of a pallet layout. Instead, this would only address what could be put into the chassis of Kubota, not whether these chassis join in a single compartment of a pallet layout.

Further, the Treiber reference teaches away from inserting the two cooperated chassis of Kubota into a single cavity 16A of Treiber because Treiber is specifically intended to provide distinct cavities to operate “multiple operating systems in different partitions” (Treiber, title,



abstract). Additionally, Treiber teaches away from incorporating multiple chassis into a single opening in that it is the intended purpose of the Treiber reference to provide multiple partitions within the computer system into which a single distinct pod or sub-pod is inserted, where the pods or sub-pods are “‘hot swappable’ for live insertion ... [so that each] pod module can be removed and inserted as a field replaceable unit (FRU) without powering-down the system” (Treiber, para. 0051). Treiber continues stating “one or both of the sub-pod modules within [a pod module] can be removed from the pod module without having to terminate power to the entire system. Accordingly, a hierarchical mechanical packaging system is provided to support the local partitioning of the computer system ...” (Treiber, para. 0052). Therefore, each partition of Treiber is intended to receive a single pod or sub-pod, and the partitioning is configured such that each pod or sub-pod is independent of other pods or sub-pods, respectively, so that the pods or sub-pods can be inserted or removed without powering down the system. It would defeat the purpose of the partitioning if two pods or sub-pods had to be joined and inserted, and thus, one skilled in the art would not incorporate two joined chassis within a single cavity 16A of Treiber that is specifically intended for a single distinct and different computing system. Furthermore, Treiber describes separators (e.g., 126) that separate the chassis of the pods or sub-pods and maintains distinct systems. It would defeat the intended implementation to join two chassis together as this would require multiple pods or sub-pods to be dependent and eliminate the modular aspect of Treiber in providing distinct computer systems.

Additionally, the Treiber reference in describing the pods or sub-pods and the cavities to receive the pods or sub-pods specifically state that the “shape of pod 100 ... is selected to correspond to the shape of opening 14A or 14B in module 11A of chassis 10 ... the chassis of pod 100 is sized and shaped so that it fits snugly within the selected chassis opening and the corresponding interior cavity...” (Treiber, para. 0058). Therefore, a single chassis is configured to fit snugly within an opening, and thus, Treiber further teaches away from inserting two joined chassis into an opening.

Still further, Applicant respectfully submits that one skilled in the art would not combine the Treiber reference with the Kubota patent. Specifically, the Treiber reference is directed to an already partitioned main chassis that receives multiple distinct computer systems

with different operating systems. There is no benefit or suggested benefit in inserting two joined and parallel chassis as described in Kubota because Treiber is already partitioned. Therefore, one skilled in the art would not combine the Treiber reference with the Kubota patent.

Similarly, the Treiber reference is directed to a system for use with multiple distinct computing systems that can independently be inserted and removed without powering down the other systems (see at least the abstract). There would be no benefit to incorporating a pair of cooperated chassis as described in Kubota into one of the compartments of the Treiber system as this would require the two systems in the distinct and cooperated chassis to be dependent. It is the intended purpose of the Treiber reference to provide a partitioned main chassis 10 and distinct and independent systems that can be independently incorporated within the main chassis 10, and thus, one skilled in the art would not combine Kubota with Treiber as this goes directly against the intended implementation of Treiber.

Therefore, the combination fails to teach each limitation as recited in claim 9, and thus, claim 9 is patentable over the applied combination of references.

Further, Applicant respectfully submits that one skilled in the art would not combine the Sheehan patent with the Kubota reference. The Sheehan reference is directed to the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be pieced and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). One skilled in the art would not incorporate two cooperated chassis as suggested in Kubota into a single kit or template described in Sheehan because each kit or template is specific to a single computer being assembled.

The intended purpose of the Sheehan reference is to provide a collection and organization of components to be used in the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be picked and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). The office action suggests that the chassis of Kubota are computer chassis. Therefore, one skilled in the art would not incorporate two joined chassis as suggested in Kubota into a single kit described in Sheehan because each kit of templates is specific to a single computer being assembled. Thus, putting two joined computer chassis as described in Kubota into the

templates of Sheehan would result in an extra unused chassis in each template which would add significant cost, wasted resources, wasted materials, take up extra room within the templates of Sheehan and provide no benefit. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota into the Sheehan patent, and thus, claim 9 is patentable over the applied combination.

Therefore, claim 9 is not obvious over the applied combination of references, and Applicant respectfully requests the rejection be withdrawn.

Additionally, the Kubota reference fails to teach or suggest that the cooperation of the chassis is for computers or for the assembly of computers. Thus, one skilled in the art referring to Kubota would not reference the Sheehan patent. There is no motivation to incorporate the Sheehan patent with the Kubota patent as the Sheehan patent is directed to collecting and organizing components of a single computer in aiding the assembly of that single computer and teaches away from joined chassis. Thus, the cooperation of two chassis would have no benefit relative to the templates of Sheehan, and instead, Sheehan teaches away from joined chassis. Therefore, one skilled in the art would not combine Sheehan with Kubota, and thus, claim 9 is patentable over the applied combination of Kubota, Treiber and Sheehan.

#### Claim 10

Claim 10 also depends from claim 8. The Treiber and Sheehan patents do not teach the limitations demonstrated above as not being taught by Kubota. Therefore, claim 10 is also patentable over the over the applied combination due at least to its dependency on a claim that is patentable over the Kubota patent. Additionally, the arguments presented above with respect to at least claim 9 can similarly be applied to claim 10.

Further, claim 10 is not obvious over the applied combination of Kubota, Treiber and Sheehan in that the combination fails to teach or suggest at least that the joined computer chassis are arranged in a single compartment of a pallet layout to increase shipping density of the pallet layout as claimed. None of the applied references describe a pallet layout or increasing shipping density of a pallet layout. The office action relies on the Sheehan patent in support of a pallet layout. However, as described above, the Sheehan patent is directed to the assembly of a single

computer. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota into the assembly of Sheehan as this would result in an unused chassis, wasted resources, wasted materials, add cost and provide no benefit.

Specifically, the Sheehan reference is directed to the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be picked and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). The office action suggests that the chassis of Kubota are computer chassis. Therefore, one skilled in the art would not incorporate two cooperated chassis as suggested in Kubota into a single kit or template described in Sheehan because each kit or template is specific to a single computer being assembled. Thus, putting two cooperated computer chassis as described in Kubota into the templates of Sheehan would result in an extra unused chassis in each template which would add significant cost and take up extra room within the templates of Sheehan. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota (assuming, arguendo, that one would reference the chassis as computer chassis) into the Sheehan patent. Thus, claim 10 is patentable over the applied combination.

Further, none of the Kubota patent, Treiber reference or Sheehan patent is directed to or related to shipping of the chassis. Additionally, none of these references describes that the joined chassis arranged in a single compartment of a pallet layout that results in an increase in shipping density of a pallet layout. Instead, the Sheehan reference relied on in the office action as the pallet layout fails to suggest that the components are incorporated into the templates to “increase shipping density” as recited claim 10. Still further, there is no suggestion to combine these references without the benefit of hindsight provided by the subject application at least in relation to joining computer chassis to increase shipping density. The applied combination of Kubota, Treiber and Sheehan fails to teach each limitation as recited in claim 10, and further one skilled in the art would not combine the references as suggested in the office action. Therefore, claim 10 is patentable over the applied combination.

### Claim 13

Claim 13 also depends from claim 8. Therefore, claim 13 is also patentable over the Kubota patent due at least to its dependency on a claim that is patentable over the Kubota patent. Further, the arguments presented above with respect to Claims 9 and 10 can similarly be applied to claim 13. Therefore, the applied combination fails to teach each element as recited in claim 13, and thus, the office action has failed to establish a *prima facie* case of obviousness and Applicant respectfully requests the rejection be withdrawn.

Additionally, the office action fails to identify how the references teach or describe multiple pairs of the joined first and second computer chassis arranged in a single compartment of a pallet layout to increase shipping density of the pallet layout. Again, the office action relies on the Sheehan reference in suggesting that the joined chassis of Kubota would be incorporated into the templates of Sheehan. However, as demonstrated above, the Sheehan reference teaches away from incorporating two joined chassis into the templates as it is the intended purpose of the templates to provide components for the assembly of a single computer. Therefore, one skilled in the art would not incorporate multiple joined chassis into a template. Further, none of the references describe or suggest shipping, and there is no suggestion or motivation to arrange multiple pairs of the joined first and second computer chassis into a single compartment of a pallet layout to increase shipping density of the pallet layout as recited in claim 13.

Additionally, Applicant respectfully submits further, the Treiber teaches away from cooperating multiple pairs of chassis as this goes against the intended implementation of Treiber in providing distinct cavities for separate systems that can be inserted and removed without affecting other systems in the main chassis. Therefore, one skilled in the art would not reference the Treiber reference to insert joined chassis into a single compartment. Thus, claim 13 is also patentable over the applied combination of Kubota, Treiber and Sheehan.

### Claim 15

Claim 15 is also not obvious over the applied combination of Kubota, Treiber and Sheehan in that the combination fails to teach or suggest at least that the “rectangular volume of the first and second computer chassis is less than twice a rectangular volume of the first or

second computer chassis” as recited in claim 15. The office action relies on the rejections of claim 8. Applicant has demonstrated above that Kubota does not teach this recited limitation. Therefore, claim 15 is also not obvious over the applied combination due at least to the arguments presented above with respect to claim 8.

Further, claim 15 recites that the first and second computer chassis are joined “so that the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis.” As demonstrated above, the Kubota patent fails to teach or suggest that joining the chassis so that a portion of a non-empty portion of a second chassis is received within an empty portion of a first chassis. Neither of the June or October office actions show or suggest in Fig. 1 of Kubota where the Kubota patent shows an “empty” portion, and instead only identifies generally a “non-empty portion.” However, it appears that the annotations are generally referring to an upper surface of the chassis and fails to describe how this is non-empty. Still further, there is no indication that the first or second chassis includes empty portions. If the annotation is referring generally to the chassis, there is no empty portion described or suggested according Kubota. Further, Kubota does not teach or suggest that an empty portion of the first chassis receives at least a portion of a non-empty portion of the second chassis. Kubota does not describe a first chassis with an empty portion, or an empty portion that receives a portion of a non-empty portion of a second chassis. The office action does not show how or where Kubota teaches that the empty portion of the first chassis receives a portion of the non-empty portion of the second chassis. Therefore, Applicant respectfully submits that the Kubota patent fails to teach or suggest at least first and second chassis that each contain an empty and non-empty portions where “empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 8. Thus, a *prima facie* case of obviousness has not been established and claim 15 is patentable over the applied combination of Kubota, Treiber and Sheehan.

Claim 15 also recites that “the first and second computer chassis in a single chassis compartment of a pallet layout,” similar to the language of claim 9. The office action relies on the Treiber reference in suggesting that one skilled in the art would utilize the single compartment of the Treiber in the invention of Kubota to provide modular packaging

configuration of a computer system. However, Applicant respectfully submits that even if, arguendo, one were to combine Treiber with Kubota, the combination would result in each of the chassis of Kubota having multiple cavities 16A, 16B as described in Treiber. This would have no effect on providing a single compartment of a pallet layout. Instead, this would only address what could be put into the chassis of Kubota, not whether these chassis join in a single compartment of a pallet layout.

Further, the Treiber reference teaches away from inserting the two cooperated chassis of Kubota into a single cavity 16A of Treiber because Treiber is specifically intended to provide distinct cavities to operate “multiple operating systems in different partitions” (Treiber, title, abstract). Additionally, Treiber teaches away from incorporating multiple chassis into a single opening in that it is the intended purpose of the Treiber reference to provide multiple partitions within the computer system into which a single distinct pod or sub-pod is inserted, where the pods or sub-pods are “‘hot swappable’ for live insertion ... [so that each] pod module can be removed and inserted as a field replaceable unit (FRU) without powering-down the system” (Treiber, para. 0051). Treiber continues stating that “one or both of the sub-pod modules within [a pod module] can be removed from the pod module without having to terminate power to the entire system. Accordingly, a hierarchical mechanical packaging system is provided to support the local partitioning of the computer system ...” (Treiber, para. 0052). Therefore, each partition of Treiber is intended to receive a single pod or sub-pod, and the partitioning is configured such that each pod or sub-pod is independent of other pods or sub-pods, respectively, so that the pods or sub-pods can be inserted or removed without powering down the system. It would defeat the purpose of the partitioning if two pods or sub-pods had to be joined and inserted, and thus, one skilled in the art would not incorporate two joined chassis within a single cavity 16A of Treiber that is specifically intended for a single distinct and different computing system. Furthermore, Treiber describes separators (e.g., 126) that separate the chassis of the pods or sub-pods and maintains distinct systems. It would defeat the intended implementation to join chassis together as this would require multiple pods or sub-pods to be dependent eliminating the modular aspect of Treiber in providing distinct computer systems.

Additionally, the Treiber reference in describing the pods or sub-pods and the cavities to receive the pods or sub-pods specifically state that the “shape of pod 100 ... is selected to correspond to the shape of opening 14A or 14B in module 11A of chassis 10 ... the chassis of pod 100 is sized and shaped so that it fits snugly within the selected chassis opening and the corresponding interior cavity...” (Treiber, para. 0058). Therefore, a single chassis is configured to fit snugly within an opening, and thus, Treiber further teaches away from inserting two joined chassis into an opening.

Still further, Applicant respectfully submits that one skilled in the art would not combine the Treiber reference with the Kubota patent. Specifically, the Treiber reference is directed to an already partitioned main chassis that receives multiple distinct computer systems with different operating systems. There is no benefit or suggested benefit in inserting two joined and parallel chassis as described in Kubota because Treiber is already partitioned. Therefore, one skilled in the art would not combine the Treiber reference with the Kubota patent.

Similarly, the Treiber reference is directed to a system for use with multiple distinct computing systems that can independently be inserted and removed without powering down the other systems (see at least the abstract). There would be no benefit to incorporating a pair of cooperated chassis as described in Kubota into one of the compartments of the Treiber system as this would require the two systems in the distinct and cooperated chassis to be dependent. It is the intended purpose of the Treiber reference to provide a partitioned main chassis 10 and distinct and independent systems that can be independently incorporated within the main chassis 10, and thus, one skilled in the art would not combine Kubota with Treiber as this goes directly against the intended implementation of Treiber.

Therefore, the combination fails to teach each limitation as recited in claim 15, and thus, claim 15 is patentable over the applied combination of references.

Further, Applicant respectfully submits that one skilled in the art would not combine the Sheehan patent with the Kubota reference. The Sheehan reference is directed to the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be pieced and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). One skilled in the art would not incorporate two



cooperated chassis as suggested in Kubota into a single template or kit described in Sheehan because each template or kit of templates is specific to a single computer being assembled.

The intended purpose of the Sheehan reference is to provide a collection and organization of components to be used in the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be picked and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). The office action suggests that the chassis of Kubota are computer chassis. Therefore, one skilled in the art would not incorporate two joined chassis as suggested in Kubota into a single template described in Sheehan because each template is specific to a single computer being assembled. Thus, putting two cooperated computer chassis as described in Kubota into the templates of Sheehan would result in an extra unused chassis in each template which would add significant cost, wasted resources, wasted materials, take up extra room within the templates of Sheehan and provide no benefit. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota into the Sheehan patent, and thus, claim 15 is patentable over the applied combination.

Therefore, claim 15 is not obvious over the applied combination of references, and Applicant respectfully requests the rejection be withdrawn.

Additionally, the Kubota reference fails to teach or suggest that the cooperation of the chassis is for computers or for the assembly of computers. Thus, one skilled in the art referring to Kubota would not reference the Sheehan patent. There is no motivation to incorporate the Sheehan patent with the Kubota patent as the Sheehan patent is directed to collecting and organizing components of a single computer in aiding the assembly of that single computer and teaches away from joined chassis. Thus, the cooperation of two chassis would have no benefit relative to the templates of Sheehan, and instead, Sheehan teaches away from joined chassis. Therefore, one skilled in the art would not combine Sheehan with Kubota, and thus, claim 15 is patentable over the applied combination of Kubota, Treiber and Sheehan.

**Issue 3: claims 1-6 and 11 are patentable over the Kubota patent in view of the Treiber reference in further view the Sheehan patent in still further view the Murphy patent.**

**Claim 1**

Applicant respectfully submits that the combination of Kubota, Treiber, Sheehan and Murphy fails to teach or suggest each limitation as recited in claim 1. As demonstrated above at least with respect to claim 8, the Kubota patent fails to teach or suggest at least that the “a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis” as recited in claim 1. The office action admits that Kubota does not teach or suggest that the rectangular volume of the joined chassis is less than twice the rectangular volume of the first or section chassis. Specifically, the office action on page 10 states “the Examiner agrees that the rectangular volume of the joined first and second chassis (250A, 250B) is not less than twice the rectangular volume of the first and second chassis...,” and further states on page 3 that “Kubota teaches ... except being less than twice a rectangular volume of the first or second computer chassis,” and instead suggests that it would be “obvious to one having ordinary skill in the art ... to make the dimensions of the first and second chassis smaller” (office action, pg. 3, emphasis added). Applicant respectfully submits, however, that simply making the first and second chassis of Kubota smaller does not result in the rectangular volume of the two joined “smaller” first and second chassis being less than twice the rectangular volume of one of the “smaller” first or second chassis. Instead, the only result of making the chassis of Kubota smaller would be that the joined rectangular volume would be smaller than the joined rectangular volume of the “larger” first and second chassis, not less than twice the “smaller” first or second chassis. Simply changing the size does not change to rectangular volume of joined chassis relative to twice the rectangular volume of the changed size chassis.

The rectangular volume of the two joined chassis in claim 1 is compared with twice the rectangular volume of one of the chassis. The two “smaller” chassis would still each have a rectangular volume and the combination of the two “smaller” chassis would still be at best according to Kubota and as admitted in the office action equal to the sum of the rectangular

volumes of the two “smaller” chassis. Simply making the chassis smaller as suggested in the office action would not result in the rectangular volume of the two joined “smaller” chassis of Kubota being less than twice one of the “smaller” chassis. Therefore, the Kubota reference fails to teach or suggest each limitation as recited in claim 1. None of the Treiber, Sheehan or Murphy references suggest joining chassis such that the “a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis” as recited in claim 1. Therefore, the applied combination of Kubota, Treiber, Sheehan and Murphy fail to teach each element of claim 1, and thus, claim 1 is patentable over the applied combination.

Applicant further submits that if the office action is suggesting reducing the size of just one of the chassis, this would not read on claim 1 as claim 1 provides that the “shape of the first computer chassis is identical to a shape of the second computer chassis.” Therefore, reducing the size of one of the chassis would not teach each of the limitations of claim 1, and thus, claim 1 is patentable over the applied combination of references.

Still further, it would not be obvious to just make the chassis of Kubota smaller because the chassis of Kubota is designed for a given implementation. To change the size would require a redesign of elements that are to be inserted in the chassis of Kubota. Therefore, one skilled in the art would not simply just reduce the size of the chassis described in Kubota.

Furthermore, the Kubota patent does not teach or suggest at least first and second chassis with empty portions and non-empty portions where “the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 1. In suggesting that Kubota describes empty and non-empty portions, the office actions mailed June 19, 2006 and October 20, 2006 cite to Fig. 1 of the Kubota patent with annotations pointing to the “non-empty” portions (see figure included above). Neither of the June or October office actions show or suggest in Fig. 1 of Kubota where the Kubota patent shows an “empty” portion, and instead only identifies generally a “non-empty portion,” and further fails to show where Kubota describes that an empty portion of a first chassis receives a portion of a non-empty portion of a second chassis. The annotations on Fig. 1 accompanying the June 2006 office action appear to generally refer to an upper surface of the

chassis and the office action fails to describe how this is non-empty. Still further, there is no indication that the first or second chassis includes empty portions. If the annotation is referring generally to the chassis, there is no empty portion identified in the annotation, and Kubota fails to describe or suggest an empty portion and non-empty portion.

Further, Kubota does not teach or suggest that an empty portion of the first chassis receives at least a portion of a non-empty portion of the second chassis. Kubota does not describe a first chassis with an empty portion, or an empty portion that receives a portion of a non-empty portion of a second chassis. The office action does not show how or where Kubota teaches that the empty portion of the first chassis receives a portion of the non-empty portion of the second chassis. Therefore, Applicant respectfully submits that the Kubota patent fails to teach or suggest first and second chassis that each contain an empty and non-empty portions where “the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 1. The Treiber, Sheehan and Murphy references also do not teach or suggest at least “the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis” as recited in claim 1. Thus, a *prima facie* case of obviousness has not been established and claim 1 is patentable over the applied combination of Kubota, Treiber, Sheehan and Murphy.

#### Claim 2

Claim 2 depends from claim 1. Therefore, claim 2 is also patentable over the applied combination patent due at least to its dependency on a claim that is patentable over the applied combination. Further, claim 2 is also patentable over the applied combination of Kubota, Treiber, Sheehan and Murphy due at least to the fact that the combination fails to teach or suggest each limitation as recited. The office action relies on the Treiber reference (e.g., see the rejection of claim 9) in suggesting that one skilled in the art would “utilize the single compartment of the Treiber et al., in the invention of Kubota, in order to provide modular packaging configuration of a computer system.” However, Applicant respectfully submits that even if, *arguendo*, one were to combine Treiber with Kubota, the combination would result in each of the chassis of Kubota having multiple cavities 16A, 16B as described in Treiber. This

would have no effect on providing a single compartment of a pallet layout. Instead, this would only address what could be put into the chassis of Kubota, not whether these chassis join in a single compartment of a pallet layout.

Further, the Treiber reference teaches away from inserting the two cooperated chassis of Kubota into a single cavity 16A of Treiber because Treiber is specifically intended to provide distinct cavities to operate “multiple operating systems in different partitions” (Treiber, title, abstract). Additionally, Treiber teaches away from incorporating multiple chassis into a single opening in that it is the intended purpose of the Treiber reference to provide multiple partitions within the computer system into which a single distinct pod or sub-pod is inserted, where the pods or sub-pods are “‘hot swappable’ for live insertion ... [so that each] pod module can be removed and inserted as a field replaceable unit (FRU) without powering-down the system” (Treiber, para. 0051). Treiber continues stating that “one or both of the sub-pod modules within [a pod module] can be removed from the pod module without having to terminate power to the entire system. Accordingly, a hierarchical mechanical packaging system is provided to support the local partitioning of the computer system ...” (Treiber, para. 0052). Therefore, each partition of Treiber is intended to receive a single pod or sub-pod, and the partitioning is configured such that each pod or sub-pod is independent of other pods or sub-pods, respectively, so that the pods or sub-pods can be inserted or removed without powering down the system. It would defeat the purpose of the partitioning if two pods or sub-pods had to be joined and inserted, and thus, one skilled in the art would not incorporate two joined chassis within a single cavity 16A of Treiber that is specifically intended for a single distinct and different computing system. Furthermore, Treiber describes separators (e.g., 126) that separate the chassis of the pods or sub-pods and maintains distinct systems. It would defeat the intended implementation to join chassis together as this would require multiple pods or sub-pods to be dependent eliminating the modular aspect of Treiber in providing distinct computer systems.

Additionally, the Treiber reference in describing the pods or sub-pods and the cavities to receive the pods or sub-pods specifically state that the “shape of pod 100 ... is selected to correspond to the shape of opening 14A or 14B in module 11A of chassis 10 ... the chassis of pod 100 is sized and shaped so that it fits snugly within the selected chassis opening and the

corresponding interior cavity..." (Treiber, para. 0058). Therefore, a single chassis is configured to fit snugly within an opening, and thus, Treiber further teaches away from inserting two joined chassis into an opening.

Still further, Applicant respectfully submits that one skilled in the art would not combine the Treiber reference with the Kubota patent. Specifically, the Treiber reference is directed to an already partitioned main chassis that receives multiple distinct computer systems with different operating systems. There is no benefit or suggested benefit in inserting two joined and parallel chassis as described in Kubota because Treiber is already partitioned. Therefore, one skilled in the art would not combine the Treiber reference with the Kubota patent.

Similarly, the Treiber reference is directed to a system for use with multiple distinct computing systems that can independently be inserted and removed without powering down the other systems (see at least the abstract). There would be no benefit to incorporating a pair of cooperated chassis as described in Kubota into one of the compartments of the Treiber system as this would require the two systems in the distinct and cooperated chassis to be dependent. It is the intended purpose of the Treiber reference to provide a partitioned main chassis 10 and distinct and independent systems that can be independently incorporated within the main chassis 10, and thus, one skilled in the art would not combine Kubota with Treiber as this goes directly against the intended implementation of Treiber.

Neither the Sheehan nor Murphy patents teach or suggest at least joining a pair of identical chassis. Therefore, the combination fails to teach each limitation as recited in claim 2, and thus, claim 2 is patentable over the applied combination of references.

Further, Applicant respectfully submits that one skilled in the art would not combine the Sheehan patent with the Kubota reference. The Sheehan reference is directed to the assembly of a single computer, where Sheehan states "[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be pieced and/or assembled" (Sheehan, col. 2, lines 22-25, emphasis added). One skilled in the art would not incorporate two cooperated chassis as suggested in Kubota into a single kit/template described in Sheehan because each kit/template is specific to a single computer being assembled.

The intended purpose of the Sheehan reference is to provide a collection and organization of components to be used in the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be picked and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). The office action suggests that the chassis of Kubota are computer chassis. Therefore, one skilled in the art would not incorporate two joined chassis as suggested in Kubota into a single template described in Sheehan because each template is specific to a single computer being assembled. Thus, putting two cooperated computer chassis as described in Kubota into the templates of Sheehan would result in an extra unused chassis in each template which would add significant cost, wasted resources, wasted materials, take up extra room within the templates of Sheehan and provide no benefit. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota into the Sheehan patent, and thus, claim 2 is patentable over the applied combination.

Therefore, claim 2 is not obvious over the applied combination of references, and Applicant respectfully requests the rejection be withdrawn.

Additionally, the Kubota reference fails to teach or suggest that the cooperation of the chassis is for computers or for the assembly of computers. Thus, one skilled in the art referring to Kubota would not reference the Sheehan patent. There is no motivation to incorporate the Sheehan patent with the Kubota patent as the Sheehan patent is directed to collecting and organizing components of a single computer in aiding the assembly of that single computer and teaches away from joined chassis. Thus, the cooperation of two chassis would have no benefit relative to the templates of Sheehan, and instead, Sheehan teaches away from joined chassis. Therefore, one skilled in the art would not combine Sheehan with Kubota, and thus, claim 2 is patentable over the applied combination of Kubota, Treiber, Sheehan and Murphy.

### Claim 3

Claim 3 depends from claim 1. Therefore, claim 3 is also patentable over the applied combination patent due at least to its dependency on a claim that is patentable over the applied combination. Further, claim 3 is also patentable over the applied combination of Kubota,

Treiber, Sheehan and Murphy due at least to the fact that the combination fails to teach or suggest each limitation as recited. Additionally, the arguments presented above with respect to at least claims 2 and 9 can similarly be applied to claim 3.

Further, claim 3 is not obvious over the applied combination of Kubota, Treiber, Sheehan and Murphy in that the combination fails to teach or suggest at least that the joined computer chassis are arranged in a single compartment of a pallet layout to increase shipping density of the pallet layout as claimed. None of the applied references describe a pallet layout or increasing shipping density of a pallet layout. The office action relies on the Sheehan patent in support of a pallet layout. However, as described above, the Sheehan patent is directed to the assembly of a single computer. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota into the assembly of Sheehan as this would result in an unused chassis, wasted resources, wasted materials, add cost and provide no benefit, and further Sheehan fails to teach or suggest joining chassis and incorporating those joined chassis into a single compartment to increase shipping density.

Specifically, the Sheehan reference is directed to the assembly of a single computer, where Sheehan states “[f]or each computer assembly, templates are assembled in the order with which the underlying parts are to be picked and/or assembled” (Sheehan, col. 2, lines 22-25, emphasis added). The office action suggests that the chassis of Kubota are computer chassis. Therefore, one skilled in the art would not incorporate two cooperated chassis as suggested in Kubota into a single template described in Sheehan because each template is specific to a single computer being assembled. Thus, putting two cooperated computer chassis as described in Kubota into the templates of Sheehan would result in an extra unused chassis in each template which would add significant cost and take up extra room within the templates of Sheehan. Therefore, one skilled in the art would not incorporate the two cooperated chassis of Kubota (assuming, arguendo, that one would reference the chassis as computer chassis) into the Sheehan patent. Thus, claim 3 is patentable over the applied combination.

Further, none of the Kubota patent, Treiber reference, Sheehan patent or Murphy patent is directed to or related to shipping of the chassis. Additionally, none of these references describes that the joined chassis arranged in a single compartment of a pallet layout that results in



an increase in shipping density of a pallet layout. Instead, the Sheehan reference relied on in the office action as the pallet layout fails to suggest that the components are incorporated into the templates to “increase shipping density” as recited claim 3. Still further, there is no suggestion to combine without the benefit of hindsight provided by the subject application in relation to joining computer chassis to increase shipping density. The applied combination of Kubota, Treiber, Sheehan and Murphy fails to teach each limitation as recited in claim 3, and further one skilled in the art would not combine the references as suggested in the office action. Therefore, claim 3 is patentable over the applied combination.

#### Claim 4

The office action in rejecting claim 4 suggests that Kubota describes “pre-assembled components (30)” citing the annotated Fig. 1 of Kubota (office action, pg. 8). However, Kubota fails to teach or suggest pre-assembled components or pre-assembled components in the non-empty portion of the chassis. Further, the annotated Fig. 1 of Kubota does not include an element “30” as suggested in the office action. Still further, the office action in rejecting claim 11, which similarly recites “pre-assembled components” admits that Kubota does not teach pre-assembled components, and instead relies on Murphy.

Applicant respectfully submits, however, that one skilled in the art would not combine at least both Sheehan and Murphy with Kubota. Specifically, the Sheehan reference is directed to the assembly and manufacture of a single computer. According to Sheehan, components are inserted in the templates so that the components are readily available during assemble of a computer. The assembly of the components within the chassis only occurs after all the components are collected into the templates to “improve methods ... for flexible and fixed manufacture ... [and to] improve the parts picking and assembly phase of manufacturing ...” (Sheehan, col. 1, lines 42-49). As such, Sheehan specifically teaches away from incorporating pre-assembled components into the chassis as this would interfere with the intended purpose of Sheehan to collect the components as “a check” to ensure the components are collected. The pre-assembly described in Murphy goes directly against the intended implementation of Sheehan, and therefore, one skilled in the art would not reference both the Sheehan and Murphy references as

they teach away from each other. Therefore, Applicant respectfully submits that one skilled in the art would not combine the applied references, and thus, claim 4 is patentable over the applied combination of references.

#### Claim 6

Claim 6 also depends from claim 1. Therefore, claim 6 is also patentable over the applied combination of Kubota, Treiber, Sheehan and Murphy due at least to its dependency on a claim that is patentable over the applied combination. Further, the arguments presented above with respect to Claims 9, 10 can similarly be applied to claim 6. Therefore, the applied combination fails to teach each element as recited in claim 6, and thus, the office action has failed to establish a *prima facie* case of obviousness and Applicant respectfully requests the rejection be withdrawn.

Additionally, the office action fails to identify how the references teach or describe multiple pairs of the joined first and second computer chassis arranged in a single compartment of a pallet layout to increase shipping density of the pallet layout. Again, the office action relies on the Sheehan reference in suggesting that the joined chassis of Kubota would be incorporated into the templates of Sheehan. However, as demonstrated above, the Sheehan reference teaches away from incorporating two joined chassis into the templates as it is the intended purpose of the templates to provide components for the assembly of a single computer. Therefore, one skilled in the art would not incorporate multiple joined chassis into a template. Further, none of the references describe or suggest shipping, and there is no suggestion or motivation to arrange multiple pairs of the joined first and second computer chassis into a single compartment of a pallet layout to increase shipping density of the pallet layout as recited in claim 6.

Additionally, Applicant respectfully submits further, the Treiber teaches away from cooperating multiple pairs of chassis as this goes against the intended implementation of Treiber in providing distinct cavities for separate systems that can be inserted and removed without affecting other systems in the main chassis. Therefore, one skilled in the art would not reference the Treiber reference to insert joined chassis into a single compartment. Thus, claim 6 is also patentable over the applied combination of Kubota, Treiber and Sheehan.

Claim 11

Claim 11 is not identified in the office action at the paragraph labeled with Roman numeral 3 on page 7 rejecting claims 1-6 over the combination of Kubota, Treiber, Sheehan and Murphy. However, Applicant notes that the office action at pages 8-9 specifically references claim 11 stating that Kubota, Treiber and Sheehan fail to teach “pre-assembled components” as recited in claim 11 continues to rely on the Murphy patent (see page 9). Therefore, Applicant addresses this rejection here in Issue 3.

Applicant respectfully submits that the applied combination of Kubota, Treiber, Sheehan and Murphy fail to teach or suggest each limitation as recited in claim 11. Claim 11 depends from claim 8, and it was shown above that Kubota, Treiber and Sheehan fail to teach each limitation as recited in claim 8. The Murphy patent also fails to teach at least identically shaped first and second chassis “wherein the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis, and wherein a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis” as recited in claim 8. Therefore, claim 11 is also not obvious over the applied combination due at least to its dependency on claim 8.

Applicant further submits that one skilled in the art would not combine at least both Sheehan and Murphy with Kubota. Specifically, the Sheehan reference is directed to the assembly and manufacture of a single computer. According to Sheehan, components are inserted in the templates so that the components are readily available during assemble of a computer. The assembly of the components within the chassis only occurs after all the components are collected into the templates to “improve methods ... for flexible and fixed manufacture ... [and to] improve the parts picking and assembly phase of manufacturing ...” (Sheehan, col. 1, lines 42-49). As such, Sheehan specifically teaches away from incorporating pre-assembled components into the chassis as this would interfere with the intended purpose of Sheehan to collect the components as “a check” to ensure the components are collected. The pre-assembly described in Murphy goes directly against the intended implementation of Sheehan, and therefore, one skilled

in the art would not reference both the Sheehan and Murphy references as they teach away from each other. Therefore, Applicant respectfully submits that one skilled in the art would not combine the applied references, and thus, claim 11 is patentable over the applied combination of references.

#### **(8) Claims Appendix**

Provided is a complete listing of all the pending claims involved with this appeal:

1. A method comprising steps of:

(a) forming a first and second computer chassis, wherein a shape of the first computer chassis is identical to a shape of the second computer chassis and includes an empty portion and a non-empty portion; and

(b) joining the first and second computer chassis so that the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis, wherein a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis.

2. The method of claim 1 wherein step (b) comprises nesting, stacking, or interlocking the first computer chassis and the second computer chassis in a single compartment of a pallet layout.

3. The method of claim 1 further comprising a step of arranging the joined first and second computer chassis in a single compartment of a pallet layout to increase shipping density of a pallet layout.

4. The method of claim 1 further comprising a step of assembling a number of pre-assembled components in the non-empty portion of at least one of the first computer chassis and the second computer chassis.

5. The method of claim 1 further comprising a step of fastening the first computer chassis to the second computer chassis.

6. The method of claim 1 further comprising a step of arranging multiple pairs of the joined first and second computer chassis in a single compartment of a pallet layout to increase shipping density of the pallet layout.

7. (canceled)

8. An apparatus comprising:

a first computer chassis; and

a second computer chassis joined to the first computer chassis, wherein a shape of the first computer chassis is identical to a shape of the second computer chassis and includes an empty portion and a non-empty portion wherein the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis, and wherein a rectangular volume of the joined first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis.

9. The apparatus of claim 8 wherein the first computer chassis and the second computer chassis are joined by nesting, stacking, or interlocking the first computer chassis and the second computer chassis in a single compartment of a pallet layout.

10. The apparatus of claim 8 wherein the joined first and second computer chassis are arranged in a single compartment of a pallet layout to increase shipping density of a pallet layout.

11. The apparatus of claim 8 further comprising a number of pre-assembled components assembled in the non-empty portion of at least one of the first computer chassis and the second computer chassis.

12. The apparatus of claim 8 further comprising a fastener for fastening the first computer chassis to the second computer chassis.

13. The apparatus of claim 8 further comprising multiple pairs of the joined first and second computer chassis arranged in a single compartment of a pallet layout to increase shipping density of the pallet layout.

14. (canceled)

15. A method comprising steps of:

(a) forming each of a first and second computer chassis into a shape wherein the shape includes an empty portion and a non-empty portion;

(b) joining the first and second computer chassis so that the empty portion of the first computer chassis receives at least a portion of the non-empty portion of the second computer chassis; and

(c) arranging the first and second computer chassis in a single chassis compartment of a pallet layout wherein a rectangular volume of the first and second computer chassis is less than twice a rectangular volume of the first or second computer chassis.

**(9) Evidence Appendix**

None

**(10) Related Proceedings Appendix**

None

**CONCLUSION**

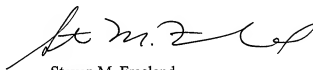
Applicant submits that the rejections of the pending claims 1-6, 8-13 and 15 are in err, and that claims 1-6, 8-13 and 15 are patentable over the applied combinations of references.

Therefore, Applicant respectfully requests a reversal of the final rejection.

Dated:

4-20-07

Respectfully submitted,



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